



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,824	08/25/2003	Hiroshi Nomura	P23683	1437
7055	7590	09/17/2004	EXAMINER	
GREENBLUM & BERNSTEIN, P.L.C.			SMITH, ARTHUR A	
1950 ROLAND CLARKE PLACE			ART UNIT	
RESTON, VA 20191			PAPER NUMBER	
			2851	

DATE MAILED: 09/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/646,824

Applicant(s)

NOMURA, HIROSHI

Examiner

Arthur A Smith

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-17 is/are allowed.
- 6) ☒ Claim(s) 1,2,7,8,11 and 12 is/are rejected.
- 7) ☒ Claim(s) 3-6,9 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/5/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 2, 7, 8, 11 and 12 are rejected under 35 U.S.C. 102(a) as being anticipated by Nomura et al. (US 2002/0135900 A1), supplied by applicant.

In reference to claims 1, 11 and 12, Nomura et al. discloses a lens barrel comprising: at least one optical element, ref. L1 or L2, configured to be guided along an optical axis; a rotatable ring, ref. 17, rotatable about a rotational axis extending in a direction of said optical axis, said optical element rotating along said optical axis by a rotation of said rotatable ring, paragraph 65; an outer annular member, ref. 12, which is non-rotatable about said rotational axis, supporting said rotatable ring inside said outer annular member, and including at least one circumferential groove, ref. 12a, located on an inner peripheral surface of said outer annular member which faces said rotatable ring, paragraph 67; an advancing/retracting mechanism, ref. 14, provided between an outer peripheral surface of said rotatable ring and said inner peripheral surface of said outer annular member, configured to move said rotatable ring along said optical axis

between front and rear limits for movement of said rotatable ring in said optical axis direction relative to said outer annular member when said rotatable ring is rotated, paragraph 67; at least one rotational projection, ref. 171, located on said outer peripheral surface of said rotatable ring, wherein said at least one rotational projection is engaged in said at least one circumferential groove such that said rotatable ring is rotatable at an axial fixed position without moving along said optical axis when said rotatable ring is moved to one of said front and rear limits by said advancing/retracting mechanism, paragraph 68; and a stopper, ref. 101, insertable into and removable from said at least one circumferential groove at an intermediate point between opposite ends of said at least one circumferential groove, wherein said stopper limits the range of rotation of said rotatable ring about said rotational axis relative to said outer annular member by engaging said rotational projection in a state where said stopper is positioned in said circumferential groove, and wherein said stopper stops preventing said range of rotation of said rotatable ring in a state where said stopper is positioned outside said circumferential groove, paragraph 106.

In reference to claim 2, Nomura et al. discloses wherein said stopper is insertable into and removable from said circumferential groove in a radial direction of said outer annular member, paragraph 106.

In reference to claims 7 and 8, Nomura et al. discloses wherein said advancing/retracting mechanism comprises: a male helicoid located on said outer peripheral surface of said rotatable ring; and a female helicoid located on said inner peripheral surface of said outer annular member, said female helicoid engageable with

said male helicoid, wherein said female helicoid and said male helicoid are disengaged from each other when said at least one rotational projection is engaged in said at least one circumferential groove, paragraph 77.

Allowable Subject Matter

Claims 13-17 are allowed.

Claims 3-6, 9 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to make inherent or obvious the claimed limitation of: (claim 3) wherein said stopper is insertable into and removable from one of said plurality of circumferential grooves; (claim 4) a stop projection which projects radially inwards from said circumferential arm portion, said stop projection insertable into and removable from said circumferential groove via said insertion hole; (claim 9) a second rotatable ring associated with said rotatable ring and configured to be movable relative to said rotatable ring in said optical axis direction and further configured to be rotatable together with said rotatable ring about said rotational axis, at least one engaging projection located on an outer peripheral surface of said second rotatable ring and configured to be engaged in said circumferential groove, together with said rotational projection, in a state where said rotatable ring and said outer annular member are positioned relative to each other in said optical axis direction such that said rotational projection is engaged in said circumferential groove; (claim 13) a pair of rotatable rings

rotatable about a rotational axis extending in a direction of said optical axis, said optical element rotating along said optical axis by a rotation of said pair of rotatable rings; at least one engaging projection located on an outer peripheral surface of the other of said pair of rotatable rings to be engaged in said at least one circumferential groove, together with said at least one rotational projection, in a state where said pair of rotatable rings and said outer annular member are positioned relative to each other in said optical axis direction such that said at least one rotational projection is engaged in said at least one circumferential groove.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arthur A Smith whose telephone number is (571) 272 2129. The examiner can normally be reached on Monday - Thursday from 8:00 AM to 5:30 PM. The examiner can also be reached on alternate Fridays during the same hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (572) 272 2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Arthur A. Smith
September 15, 2004